Contents

Overview

Objectives

The objectives of this lab are:

- Describe the various types of SQL functions.
- Use character, numeric and conversion functions in SQL.
- Use group functions on multiple rows.

Prerequisites

1. Read Chapter 4 pages 90-109 and pages 117-127.

2. Be aware of the regular expression functions on pages 109-116./

3. Work your way through the examples on pages 92-109

   o You do not have the Store schema tables installed in your schema. The Store schema tables are available in the **STOREDB** schema.

   o To use the Store Schema tables in your textbook examples, you need to put **STOREDB.** (dot) in front of the table names. For example, to run the command in the middle of page 34 you would write:

   SELECT price * 2 DOUBLE_PRICE
   FROM storedb.products;

Note the "storedb" can be either upper or lower case.

Demo Due Date:

For all sections, the **lab demo** is due in 2 weeks after reading break (Feb 22 - 26) by the end of your lab session.

Scoring:

Lab is worth **15** marks. Each query is worth 1 mark.

Functions

☐   4.   As per Lab01, create a Lab04 folder.

☐   5.   For the following, you will need to use the Human Resource tables you created in Lab01. These questions do not use the **STOREDB** tables used in the textbook examples, only the tables you installed from Lab01 (e.g. the **Employees** table). Don't forget to use the DESC statement to view the structure (the column names) of a table. For example, use **DESC Employees** to view the structure of the **Employees** table. The appendix contains an Entity Relationship diagram of the Human Resource tables.

☐   4.   The file **Lab04_Questions.sql** has 14 questions in it. Download this to your lab04 folder. Each query is worth 1 mark. For this lab you will be required to answer some of the questions using the ANSI **SQL/86** standards and the ANSI **SQL/92** standards.

☐   5.   After you have created the SQL query for each question, add that SQL under the question in the file.

Demo

Note: Be sure to use proper formatting in your SQL statements. The **SELECT** should be on one line, the **FROM** on another line and so on. Each clause should start a new line. You will lose marks if you do not use proper formatting with your SQL statements!

6.   Demo to the instructor that your script executes successfully in SQL*Plus. *(15 marks)*
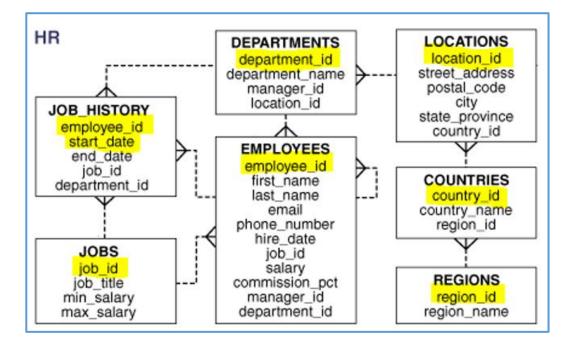
Appendix

Human Resource Entity Relationship Diagram

- Column names high-lighted in yellow are the Primary Key.
- ⊱--- Represents a 1 to many relationship. For example, the location_id in the LOCATIONS table could appear many time in the location_id of the DEPARTMENTS table. Try running the following query and you can see that the same location_id appears multiple times.

    SELECT location_id FROM departments ORDER BY location_id;